Implementation of the Cariboo-Chilcotin Land-Use Plan in Forest Development Plans

Complaint Investigation 970112
Special Investigation 990177

FPB/SIR/06

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Executive Summary

The Forest Practices Board (the Board) received a complaint that the Cariboo-Chilcotin Land-Use Plan (CCLUP) was not being properly implemented as required by the Forest Practices Code. The CCLUP is the first formally approved land-use plan for the province that, in its entirety, is a policy document intended to guide resource management. To increase legal certainty that forest development plans will address key forest management issues, government declared parts of the land use plan to be a "higher level plan." Under the *Forest Practices Code of British Columbia Act* and related regulations (the Code), forest development plans must be consistent with the higher level plan portion of the CCLUP.

The complaint and the investigation focused on the implementation of the CCLUP, rather than the CCLUP itself. Participants in this investigation could not agree on the interpretation of the CCLUP and its application to forest development plans. This investigation is the result of that disagreement. The Board limited the scope of the investigation to assess whether the licensees' preparation, and the statutory decision-makers' approval, of the 1998-2002 and 1999-2003 forest development plans in the Quesnel Lake sub-unit of the special resource development zone (SRDZ) complied with the Code's requirements for implementing higher level plans.

The investigation considered three Code requirements for forest development plans (FDPs):

1) FDPs must not prevent higher level plan objectives from being achieved.

2) FDPs must provide information related to a higher level plan.

3) FDPs must be consistent with a higher level plan.

The Board did not fully investigate compliance with the first two of these requirements because they overlap with other sections of the Code or have since been repealed by government. However, the Board did find that it is difficult, or impossible, for the public to understand, through the review of the forest development plans, how the higher level plan is being implemented. This is contributing to public concerns that the CCLUP is not being implemented as required.

The investigation determined whether the specific forest development plans noted above were consistent with the higher level plan. The Board finds that all 14 of the 1998-2002 and 1999-2003 forest development plans investigated were generally consistent with the higher level plan. All of the forest development plans were consistent with the targets and objectives of the higher level plan for mule deer winter ranges, lake management, road access for botanical forest products, no-harvest areas, and visual quality in viewsheds surrounding existing tourism operations. All of the forest development plans were also consistent with the target for backcountry recreation, but only if the least restrictive interpretation of backcountry (semi-primitive motorized)[1] is assumed. All but one of the forest development plans were also

[1] Appendix 4.

consistent with the higher level plan's objective to temporarily defer harvesting above the caribou high-elevation line.

The Board was unable to assess whether the forest development plans were consistent with the biodiversity requirements of the higher level plan because the higher level plan currently provides contradictory requirements for its biodiversity targets and objectives. However, the Board determined that the approach used by some statutory decision-makers to manage biodiversity could increase the risk of losing some elements of biodiversity within the Quesnel Lake sub-unit.

Despite the general consistency of the 1998-2002 and 1999-2003 forest development plans with the higher level plan, the Board finds that ambiguity in the higher level plan might impede successful implementation of its targets and objectives over the long term. The ministers' order, declaring the higher level plan, does not identify the specific provisions of the CCLUP that make up the higher level plan. This could reduce legal certainty that forest development plans will address key management issues. Furthermore, some of the higher level plan's objectives are too vague to be implemented or assessed, and do not provide meaningful guidance to licensees or statutory decision-makers.

Future implementation of the higher level plan is also threatened by the way the plan is being interpreted and applied. The Board finds that statutory decision-makers and licensees are applying interpretations that allow forest development plans to increase permanent road access, disturb backcountry areas, and disturb viewsheds around key lakes and existing tourism operations to a greater extent than is permissible under the higher level plan. They are also applying direction that contradicts the higher level plan's objective for biodiversity in the SRDZ and for harvesting above the caribou high-elevation line.

The future implementation of the higher level plan will be greatly affected by the interpretation of its targets for timber access. These timber access targets affect the overall implementation of the plan, and yet the Board finds that the plan fails to clearly define what these targets mean. Despite the broad social and ecological implications of the timber access targets, the ministers did not formally clarify the legal commitments made through these targets in the higher level plan. The Board considers that it is inappropriate for government to leave interpretation of these key provisions to administrators for informal resolution. This is contributing to ongoing conflict over the implementation of the higher level plan.

The Board finds no evidence that the interpretations of the timber access targets being applied are inconsistent with the higher level plan. However, the interpretations of the timber access targets may, in time, prove incompatible with the higher level plan's requirement that harvesting be excluded from no-harvest areas until alternative forest management regimes are developed. Furthermore, the interpretations might also progressively increase the risk of failing to achieve other targets over time.

Further work needs to be done to ensure that the higher level plan's targets and objectives are achieved in the future. It is unclear to the Board how the backcountry and no-harvest targets will be achieved until their locations are identified. Strategies identified by the CCLUP as important for the ongoing achievement of the higher level plan's targets and objectives have not yet been developed or endorsed as part of the higher level plan. Finally, there is no monitoring

process in place to ensure that all targets and objectives of the higher level plan are achieved. This is cause for concern, given the SRDZ's objective to respect sensitive natural values.

To ensure that the higher level plan is successfully implemented in future forest development plans, the Board recommends that government:

- identify the specific parts of the CCLUP that are the higher level plan;
- ensure that policy direction is consistent with the higher level plan;
- link targets and objectives to the land-base; and
- develop and implement an effective monitoring process to assess the achievement of goals.

To reduce conflict over the future implementation of the higher level plan, the Board also recommends that government:

- develop a transparent process for clarifying the commitments made through the higher level plan and for managing its ongoing evolution; and
- develop a way to inform the public how the higher level plan is being implemented.

Participants in the investigation all want the CCLUP to succeed and do not want to return to a pre-CCLUP era. Considering the scope of the CCLUP's provisions and that it is the first formally approved land-use plan for the province, it is not surprising that the Board identified opportunities to improve implementation of the higher level plan. This investigation provides an opportunity to learn from the implementation of the province's first region-wide higher level plan, and to apply that learning to the Cariboo Forest Region and elsewhere in the province.

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The Investigation

Nature of the complaint and investigation

The Forest Practices Board (the Board) received a complaint that the Cariboo-Chilcotin Land-Use Plan (CCLUP) was not being properly implemented. The complaint stated that operational plans (including forest development plans[2], silviculture prescriptions[3] and logging plans[4]) for the entire Cariboo Forest Region were not consistent with the management objectives of the CCLUP and, thus, prevented the achievement of those management objectives. The complaint also asserted that operational plans did not meet the content requirements of the *Forest Practices Code of British Columbia Act* and related regulations (the Code). The complaint was submitted on behalf of the Cariboo Chilcotin Conservation Society, the Sustainable Committees Sector, the Quesnel River Watershed Alliance, the Horsefly District Tourism and Ratepayers Association, and the Quesnel Environmental Society. This report refers to these organizations collectively as "the complainant."

An investigation of all these operational plans was beyond the Board's capability, so the Board narrowed the scope to one type of operational plan, the forest development plan. The Board further narrowed the scope of the investigation to two years in time, and to one area, the Quesnel Lake sub-unit of the special resource development zone (SRDZ). The Board selected the Quesnel Lake sub-unit because the complainant was particularly concerned about the effect of harvesting on caribou habitat and biological diversity.

The investigation specifically assessed whether the licensees' preparation, and the statutory decision-makers' approval, of the 1998-2002 and 1999-2003 forest development plans in the Quesnel Lake sub-unit of the SRDZ complied with the Code's requirements for implementing higher level plans. The complaint and the investigation related to the implementation of the CCLUP, rather than the content of the CCLUP. The complainant, the licensees and administrators involved in the investigation generally agree that the CCLUP provides a higher level of protection for recreation, biodiversity, and wildlife values than existed previously, while also providing more certainty for resource development. None of these participants in the investigation expressed a desire to discard the CCLUP and revert to the pre-CCLUP era. However, participants of this investigation cannot agree on how to interpret the CCLUP and apply it to operational plans. This investigation is the result of that disagreement.

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[2] A forest development plan is an operational plan that provides the public and government agencies with information about the location and scheduling of proposed roads and cutblocks for harvesting timber over a period of at least five years. It must illustrate and describe how objectives and strategies established in higher level plans, where they have been prepared, will be carried out. Site-specific plans are required to be consistent with the forest development plan.

[3] A silviculture prescription is a site-specific operational plan that describes the forest management objectives for an area to be harvested (a cutblock). Silviculture prescriptions must be consistent with forest development plans that encompass the area to which the prescription applies.

[4] A logging plan is an operational plan that details how, when, and where timber harvesting and road construction activities will take place in a cutblock, in accordance with the approved silviculture prescription and forest development plan for the area.

Implementation of the CCLUP is a complex task because of the extensive area that it covers and the scope of its provisions. The plan covers over eight million hectares with about 40 communities. It includes many general and specific provisions that cover a broad range of forest management objectives intended to guide subsequent levels of planning. The investigation provides an opportunity to learn from the implementation of the province's first region-wide higher level plan, and apply that learning to the Cariboo Forest Region and elsewhere in the province.

The investigation examined a total of 14 forest development plans, in which 4,400 hectares of harvesting proposals were approved. Most of the approved areas were scheduled for harvesting in 1999 and 2000. The plans were prepared by the small business forest enterprise programs for the Quesnel and the Horsefly Forest Districts, and by the five major licensees operating within the Quesnel Lake sub-unit: Ainsworth Lumber Co. Ltd., RFP Timber Ltd. (formerly known as Riverside Forest Products), West Fraser Mills Ltd., Weldwood of Canada Ltd. (Quesnel Division), and Weldwood of Canada Ltd. (Cariboo Division).

The forest development plans were jointly reviewed and approved by the following statutory decision-makers: district managers from the Ministry of Forests (MOF) and designated environment officials from the Ministry of Environment, Lands and Parks (MELP). Five individuals were responsible for reviewing and approving the plans:

- a previous district manager for the Quesnel Forest District, who reviewed the 1998-2002 forest development plans
- a current district manager for Quesnel Forest District, who reviewed the 1999-2003 forest development plans
- a district manager for Horsefly Forest District, who reviewed the 1998-2002 and 1999-2003 forest development plans
- a previous designated environment official, who reviewed the 1998-2002 forest development plans for the entire sub-unit
- the current designated environment official, who reviewed the 1999-2003 forest development plans for the entire sub-unit

The investigation had two general parameters. The first is that it did not consider all of the provisions relating to forest development plans under the Code. It considered only the Code provisions directly related to higher level plans, notably the requirement for forest development plans to be consistent with the higher level plan. The investigation did not assess the forest development plans for compliance with the Code's general requirement that statutory decision-makers must be satisfied that the plans would adequately manage and conserve the full range of forest resources.[5] Such an assessment would have required a detailed investigation of all information considered by decision-makers for the full range of forest resources. The Board's resources did not allow it to undertake such a detailed investigation.

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[5] Section 41(1)(b) of the *Forest Practices Code of British Columbia Act*.

In order to address specific concerns identified during the course of the investigation, the Board is assessing whether a proposed development in an area frequented by caribou in early winter was appropriate. The results of that assessment will be provided in a separate report.

The investigation's second parameter is that it did not consider all of the provisions of the higher level plan. It considered only the higher level plan's provisions that varied from the Code's general requirements. For example, the CCLUP's provision to implement the Code's general riparian requirements was not considered in the investigation. The Board examines compliance with general Code requirements such as this through its annual program of random audits on tenure holders.

The investigation did not determine compliance where it was impractical to do so. In some instances, the Board decided that the benefits of determining compliance did not justify undertaking the detailed investigation that would have been required. Instead, the Board's approach was to identify any issues affecting compliance and to propose recommendations for their resolution. This approach is consistent with the Board's principle of emphasizing solutions rather than assigning blame.

Background

A land-use plan is a strategic plan that provides broad statements of government intent for managing the land-base and guiding subsequent levels of planning. The Cariboo-Chilcotin Land-Use Plan is the first formally approved land-use plan for the province and is the result of a great deal of commitment and effort put forth by many people. The CCLUP created protected areas and divided the remaining land-base into three different resource development zones, according to intensity of use. The enhanced resource development zone includes areas where economic benefits and jobs will be increased through intensive resource management, development, and enhancement of economic resources such as timber. The integrated resource management zone includes areas that will be dedicated to sustained integrated resource use, of which some specific sites within this zone will be appropriate for enhanced resource use. The special resource development zone (SRDZ) includes low intensity areas where the sensitivity of significant fish, wildlife, ecosystem, backcountry recreation, and tourism values are recognized.

The CCLUP further divides each of these three zones into sub-units, such as the Quesnel Lake sub-unit of the SRDZ. The Quesnel Lake sub-unit covers about 3,300 square kilometres on the east side of the Cariboo Forest Region, of which 70 percent is productive forestland. It is bordered by Wells Gray and Bowron Lake Provincial Parks and includes Horsefly Lake and most of Quesnel Lake. The northern tip is located in the Quesnel Forest District and the remaining portion is in the Horsefly Forest District.

The CCLUP, in its entirety, is a policy document intended to guide resource management. It is not, of itself, legally enforceable. However, specific parts of the CCLUP can become legally enforceable in different ways. Protected areas can be designated as parks and then managed through the *Parks Act*. For forestry matters, parts of the CCLUP that are declared to be a "higher level plan" (under Part 2 of the *Forest Practices Code of British Columbia Act* (the Act)) become legal requirements through the Code. Forest development plans under the Code must be consistent with higher level plans.

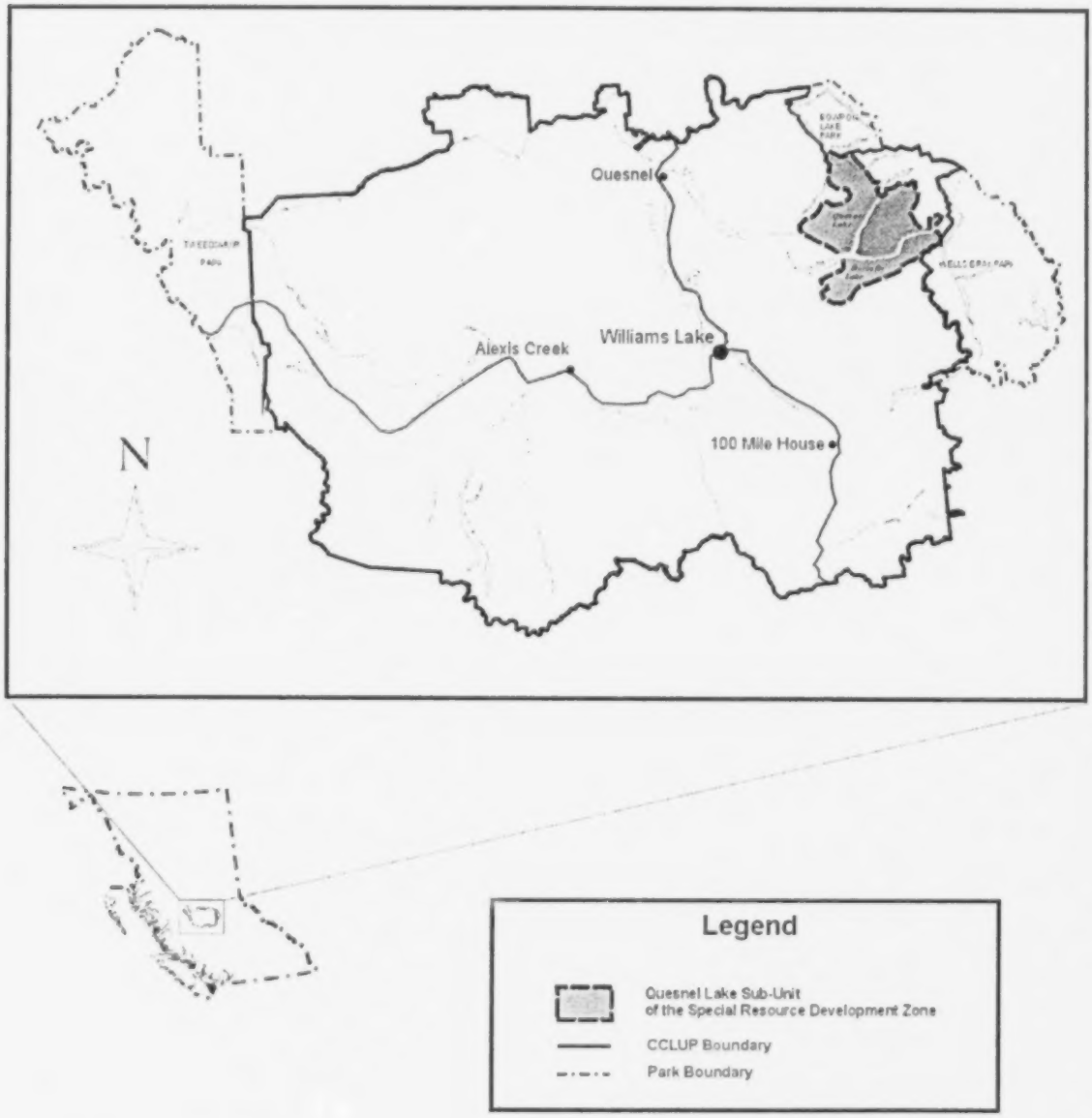
In 1996, the Board investigated a complaint that licensees and statutory decision-makers in the Cariboo Forest Region had not implemented the CCLUP through forest development plans as required. However, the forest development plans were approved before parts of the CCLUP were declared a higher level plan in January 1996. These specific forest development plans, therefore, did not have to be consistent with the CCLUP. As a result, the Board's report[6] could not assess the operational plans for compliance with the Code's provisions for higher level plans, and instead made recommendations about implementing the CCLUP.

The Board received a similar complaint in 1997, which eventually resulted in this investigation. As parts of the CCLUP were a higher level plan by then, the investigation could examine compliance of the forest development plans with the Code's requirements for higher level plans. However, before initiating a new investigation, the Board waited for government to fully respond to the Board's previous report. When government's response did not address all of the issues of the 1997 complaint, the Board proceeded with the investigation (Appendix 1 provides further details on the recommendations from the Board's 1996 investigation). The investigation began in 1998 and has taken considerable time to complete because of the scope of the complaint, the number of participants involved and the complexity of the issues. The investigation involved:

- interviews with some of the participants to assist the Board in narrowing the scope of the investigation;
- two general meetings with all the participants to discuss scope, investigation process, and the analyst's preliminary findings;
- oral representations by all the participant groups to the Board; and
- a presentation of the Board's report to the participants.

[6] *Final Report – Forest Practices Board Complaint 950038*, December 1996.

Location of the Quesnel Lake Sub-Unit



Investigation Findings

Implementation of the higher level plan portion of the CCLUP

Government expects administrators (government staff who administer the Code) and licensees to implement the entire CCLUP as government policy.[7] However, there is no legal requirement to do so. Instead, administrators have discretion to decide whether or not to implement policy. In contrast, administrators and licensees must, under the Code, implement the higher level plan portion of the CCLUP and have no discretion to do otherwise. Declaring parts of the CCLUP as a higher level plan was therefore intended to increase legal certainty that forest development plans would address key forest management issues. Unfortunately, the January 23, 1996 Cabinet order, declaring parts of the CCLUP as a higher level plan, is ambiguous in that it does not make clear exactly which provisions of the CCLUP are the higher level plan.

The order states that the following parts of the CCLUP are the higher level plan:

(a) the provisions regarding zones, objectives, targets and strategies where they are applicable to operational plans;

(b) for the purposes of section 8(1) of the *Operational Planning Regulation*[8] (the OPR), the requirement for joint sign-off (by the district manager and designated environment official) of forest development plans in special resource development zones as outlined on page 18 of *The Cariboo-Chilcotin Land-Use Plan 90-Day Implementation Process Final Report*, February, 1995; and

(c) the direction contained in the *Memorandum Outlining Government's Intent Regarding the Implementation of the Cariboo-Chilcotin Land-Use Plan*, January 23, 1996.[9]

However, part (a) of the order failed to identify the specific provisions or sections of the CCLUP that apply to operational plans and, therefore, became the higher level plan. Consequently, administrators and licensees must first identify the targets, objectives and strategies, and then decide which of these must be implemented under the Code. This is because not all of the CCLUP's provisions regarding targets, objectives and strategies are clearly labelled or listed as such. Instead, they are scattered throughout the various documents that make up the CCLUP. Furthermore, the higher level plan does not identify which targets, objectives and strategies are "applicable to operational plans." Under the Code, only the targets, objectives and strategies

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[7] "Cariboo-Chilcotin Land-Use Plan refers to the: *Cariboo-Chilcotin Land-Use Plan*, October, 1994; *Cariboo-Chilcotin Land-Use Plan 90-Day Implementation Process Final Report*, February, 1995; *Addendum to the Cariboo-Chilcotin Land-Use Plan 90-Day Implementation Process Final Report*, April 20, 1995; *Memorandum Outlining Government's Intent Regarding the Implementation of the Cariboo-Chilcotin Land-Use Plan*, January 23, 1996; and 1:250,000 map (two sheets) of the plan area dated January 1996," *Order declaring the Cariboo-Chilcotin Land-Use Plan pursuant to section 1(1) of the Forest Practices Code of British Columbia Act*, January 23, 1996.

[8] This section states that joint approval by both the district manager and a designated environment official is required for a forest development plan that relates to an area specified in the higher level plan.

[9] *Order declaring the Cariboo-Chilcotin Land-Use Plan pursuant to section 1(1) of the Forest Practices Code of British Columbia Act*, January 23, 1996.

that are applicable to operational plans are part of the higher level plan and, therefore, require implementation.

Finding #1

Licensees and statutory decision-makers were required to implement the higher level plan portion of the CCLUP, but the order declaring the higher level plan did not define precisely which parts of the CCLUP became the plan.

Furthermore, some of the CCLUP's provisions, particularly those described as strategies, are applicable to the broader CCLUP implementation, rather than to operational plans. For example, the CCLUP describes the need to develop a regional biodiversity conservation strategy. Such a strategy would not be developed as part of an operational plan because it applies to a larger land-base. The development of strategies is, therefore, generally not part of the higher level plan.

This does not imply that developing strategies is unimportant. On the contrary, the CCLUP describes the strategies as necessary for the ongoing implementation of its targets. Strategies, once developed, can eventually guide operational planning in one of two different ways. One way is for the ministers to amend the higher level plan to adopt the strategy or portions of it. Licensees and statutory decision-makers would then be obligated to implement the strategy (or portions of it) under the Code. Alternatively, strategies can be implemented as policy. In the latter case, statutory decision-makers are obligated to consider strategies (or the lack thereof) when determining whether operational plans will adequately manage and conserve resources, as per section 41(1)(b) of the Act. This Code requirement was outside the scope of the investigation.

The ambiguity regarding which parts of the CCLUP are the higher level plan made it challenging for the Board to assess compliance. The Board's approach was to identify targets and objectives in the CCLUP that, in the Board's opinion, clearly created obligations for the licensees when preparing their forest development plans. The Board considers such targets and objectives "applicable to operational plans" and, therefore, part of the higher level plan. Such targets and objectives exist for timber, biodiversity, caribou, mule deer, water resources, visual quality, road access, and other wildlife. However, the investigation did not attempt to provide a comprehensive list of all portions of the CCLUP that are the higher level plan. This is the responsibility of the ministers.

Initiatives to guide the implementation of the higher level plan

Most of the higher level plan's targets and objectives are clear, but some are unclear or contradictory for particular resource areas. This has created different expectations and interpretations of the entire CCLUP and the legal commitments made by the ministers through the higher level plan portion. The ambiguity has caused ongoing conflict about the intent of the CCLUP, especially regarding balancing timber and non-timber values.

Government agencies, including the Land-Use Co-ordination Office (LUCO), addressed the ambiguity in the CCLUP by providing interpretations of some of the CCLUP's targets and objectives.[10] LUCO stated that its interpretations reflected government's intent when it announced the land use plan. For brevity, this report refers to the interpretations provided by LUCO on behalf of government as "LUCO's interpretations." Administrators and licensees implemented LUCO's interpretations when developing and reviewing the forest development plans. LUCO stated that these interpretations are consistent with the higher level plan. In contrast, the complainant does not believe that they are consistent, and feels disenfranchised because the interpretations were developed without general public consultation. The interpretations, therefore, increased conflict around implementation of the higher level plan.

The Inter-Agency Management Committee (IAMC) incorporated LUCO's interpretations into a model that tested whether the targets and objectives of the higher level plan could be achieved on the ground.[11] The model also considered strategies developed by technical committees for achieving the higher level plan's targets and objectives for managing timber, mule deer, caribou, and biodiversity. The result was the *Integration Report*, which included management direction for statutory decision-makers on how they could meet the targets and objectives of the CCLUP. The *Integration Report* was approved by the IAMC and by the Regional Resource Board (RRB), an organization that represents a broad range of stakeholders and interest groups.

The *Integration Report* is being used to guide further detailed levels of planning, such as sub-regional plans and landscape unit plans, which in turn will be used to guide forest development planning. Because sub-regional plans and landscape unit plans had not yet been finalized, the licensees and statutory decision-makers directly applied the *Integration Report* to prepare and review the 1999-2003 forest development plans.

Licensees and statutory decision-makers need the interpretations and the *Integration Report* to guide the development, review, and approval of forest development plans. Without such guidance, as well as intermediate levels of planning, it would be difficult to assess forest development plans for consistency with the broad targets and objectives of the higher level plan. The Board has previously recognized the development of an integration model as a key document required for the successful implementation of the CCLUP.[12] The direction provided by LUCO's interpretations and the *Integration Report* is consistent with the higher level plan's commitment to provide additional direction:

> The Cariboo-Chilcotin Land-Use Plan contains several commitments to provide additional direction in the future. Where applicable to activities managed under the *Forest Practices Code of British Columbia Act*, it is government's intent to review this direction and to declare it as a higher level plan as appropriate.[13]

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[10] *Government Clarification of Key Components of the Cariboo Chilcotin Land Use Plan*, November 5, 1996.

[11] The IAMC included representatives from MOF; MELP; Land Use Coordination Office; Ministry of Small Business, Tourism and Culture; Ministry of Transportation and Highways; Ministry of Agriculture and Food; BC Parks; Ministry of Energy and Mines; Department of Fisheries and Oceans; and other agencies.

[12] "Recommendation 2" *Final Report- Forest Practices Board Complaint 950038*, December 1996.

[13] *Government's Intent Regarding the Implementation of the Cariboo-Chilcotin Land-Use Plan*, January 23, 1996.

However, government has not legally declared the LUCO interpretations or the direction set out in the *Integration Report* to be part of the higher level plan. The higher level plan can only be changed by the ministers through an order in council. This has not occurred.[14] Therefore, under the Code, the forest development plans must implement the higher level plan, rather than the interpretations and direction. In case of conflict between the higher level plan and these initiatives, the Code requires that the higher level plan, not the interpretations, be followed.

Finding #2

Neither the interpretations provided through LUCO nor the management direction provided through the *Integration Report* are part of the higher level plan. In case of conflict, statutory decision-makers and licensees are bound, under the Code, by the higher level plan.

Forest development plan requirements under a higher level plan

The investigation assessed whether the interpretations and the management direction for forest development plans conflicted with the higher level plan requirements of the Code.

The Code sets out the relationship between forest development plans and higher level plans. The Code requires, or in cases where legislation has since changed required, that:

1. harvesting does not prevent the objectives of a higher level plan from being achieved;
2. forest development plans include specific information related to higher level plans; and
3. forest development plans are consistent with any higher level plan.

The investigation considered each of these Code requirements.

1. Requirement to not prevent higher level plan objectives from being achieved

The first Code requirement considered in the investigation is section 20(2) of the Code's previous *Operational Planning Regulation* (B.C. Regulation 174/95): "a person must not propose harvesting in an area if there is a reasonable likelihood that any harvesting operation in the area would prevent the management objectives for the area contained in any higher level plan from being achieved." Of the 14 forest development plans investigated, this requirement applied to the 13 submitted before October 15, 1998.

The Board interprets that the requirement means, in part, that licensees must ensure that forest development plans are consistent with the higher level plan. However, another section of the Code provides an explicit requirement for consistency, which is considered by this report under the section: *Consistency with the higher level plan*, on page 12.

[14] On June 22, 1999, (after the timeframe of the investigation), the ministers delegated authority to the regional manager and the regional director to vary the sub-unit timber access targets, providing that the zonal timber access targets are met.

The requirement also suggests that licensees must ensure that rationales (which might include strategies, processes and models) are adequate to ensure a reasonable likelihood that proposed harvesting will not prevent achieving higher level plan objectives. However, in the Board's opinion, it may be impractical for licensees to do so because such strategies and models apply to the larger land base, not the specific areas of individual forest development plans. The statutory decision-makers are responsible for considering the adequacy of models and strategies during their review of forest development plans under section 41(1)(b) of the Act. Compliance with section 41(1)(b) was outside the scope of the investigation.

Government repealed section 20(2) of the *Operational Planning Regulation* (OPR) on June 19, 1999. The Board declined to investigate compliance with this requirement because of its redundancy with other sections of the Code, and because it has been repealed by government.

2. Requirements to provide information

The second Code requirement considered in the investigation is that forest development plans must include information related to higher level plans. There are two such information requirements. The first information requirement is that forest development plans must describe the locations of features that are "known" as per section 15(2) of the OPR. According to the OPR, locations are known when they are identified by either the higher level plan itself or the statutory decision-makers. Only those features made known by the higher level plan fall within the scope of the investigation. The higher level plan has management provisions for features such as mule deer winter ranges, a caribou high-elevation line, and viewsheds; but it does not identify the location of those features. The licensees, therefore, did not need to include any information in their forest development plans to comply with the Code's requirement to identify and describe the locations of features made known by the higher level plan.

Finding #3

The licensees did not need to include any information in their forest development plans to comply with the Code's requirement to identify and describe the locations of features made known by the higher level plan because the higher level plan did not identify the locations of features.

The second information requirement, applicable to the 13 forest development plans submitted before October 15, 1998, was section 15(7) of the previous OPR (B.C. Reg. 174/95): "A person must ensure that a forest development plan describes, for the area under the plan…the actions required to achieve the known landscape level objectives, including any biological diversity objectives." Section 1(3) of the OPR states that a feature, objective or other thing is known if it is contained in a higher level plan or made known by a statutory decision-maker at least four months prior to the plan being submitted for approval. The Board therefore interprets that the higher level plan's targets and objectives are known landscape-level objectives.

The investigation found that some of the forest development plans do not describe actions to achieve some of the targets and objectives of the higher level plan. In some cases, the forest development plans claim to achieve a particular target or objective, but do not describe specific actions for doing so. Others describe only cutblock-specific actions, but not the actions for achieving the targets over the entire area of the plan. In both cases, neither the public nor the Board would be able to determine precisely how the forest development plans addressed the targets of the higher level plan. The Board decided not to pursue investigating compliance with this requirement because it would have required considerable analysis, and because the requirement was repealed on June 15, 1998.

A new content requirement was included as section 20(1)(b)(iv) in the June 15, 1998 replacement *Operational Planning Regulation* (B.C. Regulation 107/98). The new requirement applied to the one forest development plan submitted after October 15, 1998. Under the new requirement, a cutblock may be proposed in a forest development plan "only if the proposed plan…describes for the cutblock…measures, if any, proposed to achieve higher level plan objectives." Unlike the requirement provided by section 15(7) of the previous OPR, it does not require that licensees demonstrate how the higher level plan is to be implemented for the entire area of the forest development plan. Instead, forest development plans need only provide cutblock-specific information. The public would find it difficult or impossible to assess how the licensee intends to achieve the higher level plan's targets and objectives over the entire area of the plan through the limited cutblock information provided by this requirement.

Finding #4

Recent changes to the Code make it difficult or impossible for the public to understand, through a review of a specific forest development plan, how that plan addresses the targets and objectives of the higher level plan for the area covered by the forest development plan.

The new requirement's use of the term "if any" also makes it difficult for statutory decision-makers or the Board to assess whether licensees have provided the required cutblock-level information. The absence of actions for a cutblock could mean that either there are no actions, or that the forest development plan fails to describe the necessary actions. Assessing compliance would require determining the licensees' intent for each individual cutblock. Even then, the results might be inconclusive. The Board therefore did not attempt to assess compliance with this requirement.

Finding #5

The Code's requirement for a forest development plan to describe for a cutblock the measures, if any, proposed to achieve higher level plan objectives, is difficult to implement and assess. The absence of actions for a cutblock could mean that either there are no actions, or that the forest development plan fails to describe the necessary actions.

3. Consistency with the higher level plan

The third Code requirement considered by the investigation is that the forest development plans must be consistent with the higher level plan, as per section 10(1)(d)(i) of the Act. For the purposes of assessing compliance, the Board considered the forest development plan was the plan that had been jointly approved by both statutory decision-makers. In mid-1997, the Code was amended to state that "an operational plan is deemed to be consistent with higher level plans and other operational plans if the operational plan does not materially conflict with them." Materially means "substantially" or "considerably."[15] This Code amendment provides licensees and statutory decision-makers with some latitude for implementing higher level plan requirements that were previously inflexible. However, this latitude also makes it more subjective, and therefore more difficult, for statutory decision-makers to assess whether forest development plans meet the requirement for consistency with the higher level plan.

The Board referred to the higher level plan for guidance on the amount of flexibility permissible. The higher level plan states:[16]

> Zonal targets are expressions of government intent for the land use zones identified in the plan. These targets, including access to 70 per cent of the timber from the productive forest land base averaged over the special resource development zone, are firm commitments.
>
> Sub-unit targets represent an estimate of how the zonal targets will be applied across a given zone. Where sub-unit targets are described numerically, they are not intended to be applied rigidly to each operational plan. They must, however, be substantially met across each sub-unit in an orderly and equitable manner.
>
> It is intended that the zonal and sub-unit targets approved by government be implemented as part of the Cariboo-Chilcotin Land-Use Plan...

[15] *The Canadian Oxford Dictionary*, 1998 edition.

[16] *Government's Intent Regarding the Implementation of the Cariboo-Chilcotin Land-Use Plan*, January 23, 1996.

Based on the higher level plan, the Board interprets that the forest development plans investigated were required, in aggregate with all other forest development plans in the SRDZ, to fully meet the zonal targets for SRDZ. Determining compliance with zonal targets would require assessing all forest development plans in all sub-units of the SRDZ. Forest development plans in sub-units other than the Quesnel Lake sub-unit were outside the scope of the investigation.

The Board further interprets that the forest development plans were required, in aggregate, to substantially meet each of the numerical sub-unit targets applicable to the Quesnel Lake sub-unit. However, where the higher level plan specifies that numerical targets are to be achieved in the long-term, such targets do not create immediate obligations for the forest development plans. Instead, over time the forest development plans, in aggregate, must substantially meet them.

The higher level plan does not define "substantially," but its use of the word reinforces that there is some flexibility for the forest development plans, in aggregate, to vary from the numerical sub-unit targets of the higher level plan. The Board interprets that the amount of variance permissible depends on the implications for forest management, which must be assessed on a case-specific basis.

Finding #6

The forest development plans investigated, in aggregate, had to substantially meet each of the numerical sub-unit targets for the Quesnel Lake sub-unit. Where the targets are long-term targets, forest development plans, in aggregate, must substantially meet each of the numerical sub-unit targets over time.

The effect of this requirement is that there is little or no flexibility for planners and statutory decision-makers to give priority to one target or objective at the expense of another. All sub-unit targets and objectives of the higher level plan must be substantially achieved. In contrast, some statements in the CCLUP imply that there is flexibility to give priority to timber targets over other resource targets:

> However, if necessary over time, fine-tuning adjustments will be made to ensure that the firm timber target commitment established by the Land Use Plan for the Special Resource Development Zone is achieved.[17]

In other words, the CCLUP anticipates adjusting non-timber targets over time if necessary to achieve zonal timber targets. The CCLUP also suggests that timber enhancement activities should be considered in the SRDZ as an alternative to adjusting the non-timber targets:

> Where the management targets for other resources have the potential to result in less than the 70% timber target being achieved, enhancement activities may be prescribed to ensure that the 70% target is met.[18]

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[17] *90-Day Implementation Process Final Report*, February 1995, page 8.

[18] *90-Day Implementation Process Final Report*, February 1995, page 151.

Despite these references to the possible future adjustment of targets, the forest development plans must be consistent with each of the current targets of the higher level plan. Any necessary changes to targets or objectives in the higher level plan can occur only through formal revisions to the higher level plan in the future:

> It is also recognised that, over time, revisions to the targets may be proposed through sub-regional and local planning processes. These proposals will be reviewed in the context of the overall land-use plan, and, where appropriate, be approved as formal land-use plan revisions.[19]

Therefore, to be consistent with the current higher level plan, the forest development plans cannot place a priority on one resource target if that would prevent other targets from being achieved.

Finding #7

Despite the CCLUP's references to the possible future adjustment of targets, the forest development plans must be consistent with each of the current targets of the higher level plan. Planners and statutory decision-makers cannot give priority to one target of the higher level plan if that would prevent other targets and objectives from being achieved. Any necessary changes to targets or objectives in the higher level plan can occur only through formal revisions to the higher level plan.

The investigation assessed consistency of the forest development plans with the present higher level plan targets and objectives. In doing so, the Board also considered the broad management objectives, described as "fundamental elements," for the SRDZ. The CCLUP states that the review and approval of development permit applications and plans is to be consistent with the intent of these fundamental elements, which include the following:

- "Resource development activities (such as forestry, mineral exploration and mining development, cattle grazing, tourism, wildcraft/agro-forestry, fishing and hunting) will be carried out in a manner that respects sensitive natural values.
- The forest industry will have access to 70 per cent of the timber from the productive land base averaged over the zone. The maximum netdown will be 30%."[20]

These objectives are part of the higher level plan. Therefore, the need to respect sensitive natural values, and to access 70 percent of the productive land-base with a maximum netdown (reduction for other resource values) of 30 percent, are requirements for forest management in the SRDZ.

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[19] *Government's Intent Regarding the Implementation of the Cariboo-Chilcotin Land-Use Plan*, January 23, 1996.

[20] *90-Day Implementation Process Final Report*, February 1995, page 177.

Finding #8

The Code required the forest development plans to be consistent with the higher level plan's objectives for the special resource development zone to respect sensitive natural values and to provide access to 70 percent of the timber from the productive land base, averaged over the zone.

These general objectives are achieved through implementing the more specific targets and objectives of the higher level plan for the Quesnel Lake sub-unit. The investigation assessed the forest development plans for consistency with the higher level plan's targets and objectives for timber, biodiversity, caribou, mule deer, watershed integrity, visual quality, road access and other wildlife.

Timber

The investigation assessed the consistency of the forest development plans with three different types of timber targets: access to timber, type of harvesting, and location of harvesting.

Access to timber

The higher level plan provides a target of, on average, 70 percent access to timber in the SRDZ. Reductions for other resource values are not to exceed 30 percent. The 70 percent timber access target is allocated across the sub-units, with each sub-unit receiving a different allocation that, in aggregate, average out to the zonal target. For the Quesnel Lake sub-unit, the higher level plan commits to a total of 67 percent access to timber and 33 percent no-harvest on the productive forest land base.

The CCLUP defines "no harvest" as "the portion of the total forest that, due to other resource values, is not presently available for harvest under current forest management regimes. Some of these areas are expected to become available in the future provided that retention of the other resource values, particularly wildlife, can be assured."[21] In other words, harvesting may eventually be allowed in no-harvest areas, but not using current forest management practices. No-harvest does not necessarily mean an area that is permanently reserved from harvesting, although the public, based on common usage of those words, will interpret it as such.

The Board interprets that the no-harvest target requires that, at any given point in time, at least 33 percent of the productive forest land in the sub-unit must be in a no-harvest state, meaning not harvested, or harvested under new management regimes. The investigation estimated that implementing the forest development plans would still leave over 65 percent of the sub-unit not harvested. The forest development plans are therefore consistent with the no-harvest target of the higher level plan.

[21] *90-Day Implementation Process Final Report*, February 1995, page 11.

Finding #9

The forest development plans are consistent with the no-harvest target of the higher level plan.

While the higher level plan's definition of "no harvest" is clear, its definition of timber access is not. The CCLUP's many references to timber access targets (Appendix 2) do not resolve whether access is to be area-based (i.e., access to 67 percent of the land in the SRDZ with commercial forest on it) or volume-based (i.e., 67 percent of the volume that is growing in the SRDZ). The higher level plan also does not indicate whether the 67 percent access is to occur over a commercial rotation or over some alternate planning horizon. This is important because it determines, over a given time frame, how much area is available for harvesting versus how much is left standing to address other resource values. In other words, interpretation of the timber access targets has implications for the overall implementation of the higher level plan. The interpretation of these targets is consequently of foremost interest to forest companies, forest workers, the general public and government.

Finding #10

The higher level plan fails to clearly define its timber access targets, despite their significance for the overall implementation of the higher level plan.

Because the higher level plan does not clearly define the timber access targets, different interpretations for timber access might fit within its bounds. LUCO provided an area-based interpretation that the higher level plan makes all the timber on 67 percent of the forest land base in the Quesnel Lake sub-unit available for harvesting over one commercial rotation (80 years for lodgepole pine and aspen; 120 years for other species). Areas of the sub-unit that are to be managed over longer rotations are considered as contributing toward the 33 percent no-harvest target of the higher level plan. LUCO's interpretation considers these contributing areas as the "equivalent" of no-harvest areas. Under this interpretation, some of the no-harvest target is derived from areas where timber harvesting has been deferred. For example, a strategy is being developed to achieve the higher level plan target to exclude harvesting from 20 percent of the Quesnel Lake sub-unit to address caribou values. The rest of the no-harvest target is derived from "equivalent" no-harvest areas that are actively managed for timber production on an extended rotation.

The Board has two concerns with LUCO's interpretation. The first concern is that the interpretation might not fit with the higher level plan's definition of "no harvest." The "equivalent" no-harvest areas are derived from areas actively managed for timber production, albeit on a longer rotation period, and are not tied to any specific area of land identified as no-harvest. In contrast, the higher level plan states that no-harvest areas are not presently available for harvest under current forest management regimes. Harvesting can occur only if and when alternative management regimes are ever developed. LUCO's interpretation could result in harvesting that is inconsistent with the requirements of the higher level plan. It is unclear to the Board how harvesting can be excluded from no-harvest areas unless all such areas are identified on the land-base in the sub-unit.

Finding #11

LUCO's interpretation of the timber access targets may, over time, be incompatible with the requirement of the higher level plan to exclude harvesting from no-harvest areas until alternative forest management regimes are developed.

The Board's second concern with the interpretation is that it may also put other non-timber targets and objectives at risk in the future. When the interpretation was incorporated into the *Integration Report*, it required the adjustment of the strategies for achieving caribou, mule deer and biodiversity objectives of the higher level plan. The authors of some of those strategies considered them to be minimum requirements having a reasonable probability of achieving the objectives of the higher level plan in the long term. This adjustment of strategies could therefore potentially create a relatively higher risk of not achieving the higher level plan's non-timber objectives in the long term. The Board notes that the IAMC has committed to revisiting the interpretation if, over time, the definition proves unworkable with other objectives of the higher level plan. However, the IAMC currently does not have a monitoring process in place to assess the achievement of higher level plan goals.

Finding #12

The interpretations of the timber access targets applied by statutory decision-makers and licensees might progressively increase the risk of failing to achieve the targets for non-timber resource values over time.

Despite these concerns with the interpretation of the timber access targets, the investigation is restricted in scope to assessing only the recent forest development plans for consistency with the higher level plan. In that restricted scope, the Board could not evaluate whether LUCO's interpretation of timber access targets would allow other targets and objectives to be achieved over the long term.

For the forest development plans investigated, the timber access target is implicitly a long-term target and therefore did not create specific obligations. While the higher level plan does not specify a time frame for timber access, the 67 percent access would logically occur over a period longer than that of the forest development plans.

Type of harvesting

The higher level plan's second type of timber targets relates to the type of harvesting. For the Quesnel Lake sub-unit, the higher level plan specifies that 60 percent of the productive forest land is available for "modified" harvest and 7 percent for "conventional" harvest. Together, these total the specified 67 percent timber access for the sub-unit. Modified harvest is "the proportion of the forest land base available for harvest if management is modified to more-sensitive practices."[22] Modified regimes included: cutblock size or shape adjustments, modified

[22] *90-Day Implementation Process Final Report*, February 1995, page 148.

clearcut systems, alternative harvesting systems and alternative silvicultural systems. Conventional harvest is the area available for harvesting using standard practices available at the time the plan was declared on January 23, 1996. The ratio of modified to conventional timber access indicates that 90 percent of all harvesting in the sub-unit must use modified methods.[23] However, the CCLUP states that these targets are intended to guide long-term planning.[24] The Board interprets that the requirement is for all of the forest development plans in the SRDZ, averaged over the long-term, to together be consistent with the targets. The targets, therefore, did not create any specific short-term obligations for the forest development plans under investigation. Planners and statutory decision-makers should, nevertheless, consider these targets in the development and review of the immediate forest development plans to ensure that the targets will be achieved over time.

The forest development plans investigated indicated that, in aggregate, only 55 to 63 percent of all harvesting was modified,[25] falling far short of the required long-term ratio of 90 percent. At the time of the investigation, licensees and statutory decision-makers have not fully addressed the modified harvest target of the higher level plan.

The investigation did not determine whether the modified harvesting used was effective for addressing non-timber resource values. This is a consideration for the Code's requirement to adequately manage and conserve resources, which was not examined by the investigation.

Finding #13

The proportion of modified harvesting in the forest development plans fell far short of the required long-term target. Given the long-term nature of this target, this shortfall is not inconsistent with the higher level plan. However, licensees and statutory decision-makers to this point have not fully addressed the modified harvest target of the higher level plan.

Location of harvesting

The third type of timber target relates to the location of forestry development. The higher level plan states that the primary areas for timber development in the Quesnel Lake sub-unit will be in the northern, western and southern edges (see map page 5). The Board presumes that this target reflects special management requirements for caribou habitat and viewscapes around key lakes in the eastern and central portions of the sub-unit. However, the sub-unit has an irregular shape with no definite northern, western and southern edges. As such, the target does not provide meaningful guidance for forest development planning. The Board could not assess the forest development plans for consistency with this ambiguous target.

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[23] 60 percent modified+(60 percent modified + 7 percent conventional) = 90 percent.

[24] *90-Day Implementation Process Final Report*, February 1995, page 149.

[25] The range occurs because some of the forest development plans do not designate for some harvesting proposals whether harvesting is either modified or conventional. The lower limit of 55 percent assumes that all undesignated proposals use conventional harvesting, and the upper limit of 63 percent assumes that all undesignated proposals use modified harvesting.

Finding #14

The higher level plan's target for location of harvesting in the Quesnel Lake sub-unit is unclear and therefore difficult to implement and assess.

Biodiversity

Biological diversity (or biodiversity) refers to the diversity of plants, animals and other living organisms and their interactions. The investigation assessed the forest development plans for consistency with the higher level plan's biodiversity targets and objectives, including:

- seral targets;
- the objective to place "greater emphasis on the conservation of biodiversity at stand and landscape levels relative to the Integrated Resource Management and Enhanced Resource Management Zones of the Land Use Plan"[25]; and
- the general objective to respect sensitive natural values in the SRDZ.

The Code's *Biodiversity Guidebook* (the guidebook) recommends using habitat diversity, which ensures that a broad range of habitats is available to the full range of organisms, as a surrogate to maintain biodiversity. To encourage management for a broad range of habitats, the guidebook provides targets for the proportion of forest age-classes (known as seral stages) that should be represented on the land base. The guidebook describes these forest age-classes as "early," "mature plus old," and "old" seral stages. The seral targets of the guidebook that apply to an area depends on the relative importance of biodiversity, known as bioemphasis. The higher the assigned bioemphasis for an area, the more rigorous the seral targets of the guidebook.

The higher level plan specified a three-step evolution of seral targets. Initially, the higher level plan provided interim target ranges for various seral stages. The higher level plan then replaced the interim target ranges with the more comprehensive and specific seral targets of the guidebook, after the guidebook was released. The higher level plan anticipates a third shift in biodiversity management after the completion of the regional biodiversity conservation strategy (the biodiversity strategy). Biodiversity will then be managed using the bioemphasis options and seral targets outlined in the biodiversity strategy.

The draft regional biodiversity conservation strategy (draft biodiversity strategy) was completed in 1996 but the ministers never formally approved it as part of the higher level plan. The draft biodiversity strategy and its bioemphasis options are therefore not part of the higher level plan. To achieve consistency with the higher level plan's seral targets, licensees and administrators were not required to apply these bioemphasis options or seral targets. The higher level plan, instead, required managing to the seral targets of the guidebook.

In the absence of declared bioemphasis options for specific landscape units, the guidebook defaults the relative importance of biodiversity to the lower bioemphasis option (providing that

[25] *90-Day Implementation Process Final Report*, February 1995, page 179.

the lower biodiversity emphasis is not applied to more than one half of the area). This means that the forest development plans would be consistent with the higher level plan's seral targets if the lower bioemphasis default is applied. While applying the lower bioemphasis default would be consistent with the biodiversity targets of the higher level plan, doing so would be inconsistent with the higher level plan's objectives for the SRDZ. The higher level plan's objective, requiring a greater emphasis on the conservation of biodiversity for the SRDZ than for other zones, cannot be achieved by defaulting to the lower bioemphasis option. Doing so would treat the SRDZ like all other zones with regard to biodiversity conservation.

Furthermore, widespread application of the lower bioemphasis option is unlikely to respect sensitive natural values in the SRDZ, as required by the higher level plan:

> The lower biodiversity emphasis option may be appropriate for areas where other social and economic demands, such as timber supply, are the primary management objectives. This option will provide habitat for a wide range of native species, but the pattern of natural biodiversity will be significantly altered, and the risk of some native species being unable to survive in the area will be relatively high.[27]

The objectives of the higher level plan, therefore, require not defaulting to seral targets based on the lower bioemphasis option. Instead, meeting these objectives requires applying more rigorous bioemphasis options, such as those provided by the draft biodiversity strategy (not yet endorsed in the higher level plan). The higher level plan's seral target requirements and its biodiversity objectives for the SRDZ are presently contradictory.

Finding #15

The higher level plan's seral target requirements and its biodiversity objectives for the SRDZ are presently contradictory. Applying seral targets based on the lower bioemphasis default would be consistent with the biodiversity targets of the higher level plan, but inconsistent with the higher level plan's objectives for the SRDZ. The higher level plan's objective, requiring a greater emphasis on the conservation of biodiversity for the SRDZ than for other zones, cannot be achieved by defaulting to the lower bioemphasis option.

Because the higher level plan's requirements are contradictory, the Board could not evaluate the forest development plans for consistency with the biodiversity targets and objectives for the SRDZ. However, the Board considered whether the approach used by the statutory decision-makers and licensees would achieve the biodiversity objectives of the higher level plan. That approach included applying direction that came from three sources: the regional manager, the deputy ministers, and the *Integration Report*.

For the review of the 1998-2002 forest development plans, the regional manager, in anticipation of direction that would be provided by the deputy ministers, directed the district managers not to allow early seral stage targets to constrain timber availability. The district manager from Horsefly Forest District and the previous district manager from Quesnel applied this direction.

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[27] *Biodiversity Guidebook*, September 1995.

In contrast, meeting the objectives of the higher level plan requires managing to a more rigorous standard than the lower bioemphasis default. For those more rigorous intermediate and higher bioemphasis options, the guidebook specifies applying early seral targets. Furthermore, an excess of early seral stands indicates an age class imbalance that could prevent a full range of habitats being available for the full range of organisms. This conflicts with the higher level plan's objective to respect sensitive non-timber values. The objectives of the higher level plan therefore required applying early seral targets, even where timber supply might be affected.

The deputy ministers of MOF and MELP provided general guidance for the province by recommending reducing or not applying some seral targets of the guidebook in order to keep the Code's impact on provincial timber supply within targets set by government. That direction allows for biodiversity, in some instances, to be managed at levels below even that of the lower bioemphasis default.[28] The district manager from Horsefly applied that direction when reviewing the 1998-2002 forest development plans and, with the current designated environment official and current district manager for Quesnel, continued applying it for the 1999-2003 forest development plans. The provincial guidance, applied by some statutory decision-makers, should not have pre-empted the objectives of the higher level plan that were enacted through the Code. The biodiversity objective of the higher level plan requires applying bioemphasis options that are more rigorous than the lower bioemphasis default.

The *Integration Report*, although not available for the review of the 1998-2002 forest development plans, was used by all of the statutory decision-makers to assess the 1999-2003 plans for biodiversity. The *Integration Report* directed that early seral targets not be applied, which is consistent with the province-wide guidance of the deputy ministers. As explained previously, the Board considers that not applying early seral targets was inconsistent with the objectives of the higher level plan.

Finding #16

Some statutory decision-makers applied direction provided by the regional manager, the deputy ministers and the *Integration Report*, which conflicted with the higher level plan's objectives for the SRDZ.

The Board assessed the impact on biodiversity of applying the direction from the regional manager, the deputy ministers and the *Integration Report*. The Board based its assessment on the bioemphasis options outlined in the draft biodiversity strategy. While licensees and statutory decision-makers were not required, under the Code's consistency provision, to implement the bioemphasis options of the draft biodiversity strategy, those emphasis options nevertheless provided a tangible means for achieving the biodiversity objectives of the higher level plan. The IAMC and the statutory decision-makers recognized those bioemphasis options as the appropriate standard. This is evidenced by incorporation of the draft biodiversity strategy into the *Integration Report* and use of the draft biodiversity strategy in statutory decision-makers' reviews of forest development plans.

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[28] The deputies' letter provided for, under certain conditions, "reducing" old seral targets and not applying the mature plus old seral targets.

The Board's assessment found that the Horsefly district manager and current designated environment official jointly approved 560 hectares of harvesting proposals in under-represented mature plus old seral stands and over-represented early seral stands[29] in the Quesnel Lake sub-unit. Details are provided in Appendix 3. To interpret what these approvals might mean for the management of biodiversity, the Board referred to the *Biodiversity Guidebook*. It states:

> It is unclear to what extent management can deviate from natural seral stage distributions without losing elements of biodiversity. Even at the scale of landscape units, natural patterns often vary from the average. This guidebook, while acknowledging the uncertainties, presents the minimum requirements considered to have a good probability of maintaining biodiversity within the landscape unit. It assumes that greater change from natural seral stage distributions would increase the risk to biodiversity, and less change would decrease the risk.[30]

The Board interprets that these harvesting proposals could result in the loss of some elements of biodiversity within the Quesnel Lake sub-unit.

Finding #17

Although the draft regional biodiversity conservation strategy is not part of the higher level plan, it was recognized by the licensees and statutory decision-makers as a means for achieving higher level plan biodiversity objectives. The Horsefly district manager and current designated environment official jointly approved 560 hectares of harvesting proposals in the Quesnel Lake sub-unit that did not follow the bioemphasis options of the regional biodiversity conservation strategy. This could increase the risk of losing some elements of biodiversity within the Quesnel Lake sub-unit.

Caribou

The caribou in the Quesnel Lake sub-unit are a distinct type of caribou that inhabit mature forests and alpine areas of southeastern and eastern-central British Columbia. There are 200 to 300 animals left in this eastern population of the Cariboo Forest Region. The CCLUP states that these caribou are at risk and that, provincially, the regional population is of considerable significance and a high wildlife priority.[31]

The forest development plans had to be consistent with the higher level plan's objectives for caribou. The higher level plan states that the "overriding objective is to maintain habitat values for mountain caribou within the Cariboo Region."[32] This objective applies to habitat values that occur at both high elevation and low elevation (early winter range areas). In mid and late

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[29] Early seral targets are expressed as a maximum allowed. Other seral targets are expressed as the minimum allowed.

[30] *Biodiversity Guidebook*, September 1995, page 14.

[31] These caribou have since been indicated as "red-listed." Red-listed wildlife is considered extirpated, endangered, or threatened. The Committee on the Status of Endangered Wildlife in Canada has listed all caribou in the southern two-thirds of the province as threatened.

[32] *90-Day Implementation Process Final Report*, February 1995, page 156.

winter, the caribou move to higher elevations where they can travel on the snowpack and reach tree lichens, their principal food source. However, in early winter while snow is still soft, some caribou survive at lower elevations until the higher elevation snowpack deepens and hardens enough to support them.

For high-elevation areas, the higher level plan maintains habitat values by restricting harvesting as per the Quesnel Highlands caribou strategy. The strategy precludes harvest from an estimated 20 percent of the Quesnel Lake sub-unit and requires modifying harvesting to more sensitive practices over an additional 10 percent. The higher level plan achieves this by deferring harvesting above 5000 feet elevation, called the "caribou high-elevation line," until resource agencies have completed a final strategy that accommodates caribou. When the final strategy is in place, the higher level plan will allow modified harvesting practices on 35 percent of the area above the caribou high-elevation line. The final strategy will designate no-harvest and modified harvest areas and will provide management prescriptions for the modified harvesting areas. The CCLUP anticipates that the final strategy may also adjust the location of the high-elevation line. The IAMC expects to endorse a final strategy in late 2000.

All 14 of the approved forest development plans, with one exception, deferred harvesting above the current high-elevation line, as required by the higher level plan. The exception was an amendment to Forest Licence A20013, approving cutblocks 43, 44 and 45 for cutting permit 072 (blocks 44 and 45 were later amalgamated into cutting permit 778). In this amendment, the current Quesnel district manager and the current designated environment official jointly approved 70 hectares of cutblocks above the high-elevation line to salvage blown-over timber.

The approval potentially fits with the CCLUP's anticipated future adjustment of the caribou high-elevation line. However, the Code required the amendment to be consistent with the current higher level plan, and not as the higher level plan may be in the future. The approval is also consistent with the management direction of the *Integration Report*, which allows up to 10 percent of the no-harvest area to be cut for salvage. However, the *Integration Report*'s management direction contradicts the higher level plan, which stipulates no harvesting prior to completing a final strategy.

Harvesting directly contradicted the higher level plan's objective to defer harvesting above the high-elevation line, and therefore materially conflicted with the higher level plan. The Board nevertheless recognizes that salvage harvesting might be appropriate under certain circumstances, and notes that the proposal was developed in consultation with MELP biologists to lessen its potential impact on caribou habitat.

Finding #18

All but one of the 14 forest development plans were consistent with the higher level plan's objective to temporarily defer harvesting above the caribou high-elevation line. The proposal and approval of the amendment to the 1998-2002 forest development plan for Forest Licence A20013, allowing salvage harvesting above the caribou high-elevation line, was inconsistent with the higher level plan. However, the amendment was developed in consultation with MELP biologists to lessen its potential impact on caribou habitat.

For low-elevation early winter range areas, the higher level plan provides information on how the general objective of maintaining caribou habitat values might be achieved. It states:

> Apply the provisions of the [Code] to manage lower elevation habitats including winter ranges and travel corridors as they are identified. Where possible and where compatible with other conservation needs, they may be met through the Forest Ecosystem Networks (FEN) and old growth reserve requirements within each Landscape Unit.[33]

In other words, the higher level plan indicates that early winter range habitats can be "maintained" by overlapping them with FENs and old growth areas where appropriate, and by applying the general provisions of the Code. The higher level plan therefore requires no particular action for managing early winter range areas beyond applying the general provisions of the Code.

In any case, the higher level plan does not designate the location of early winter range areas. Although the 1996 and 1998 draft caribou strategy reports propose five different areas as early winter range areas, these were not endorsed as part of the higher level plan. The licensees were, therefore, not required to address early winter range areas in their forest development plans to ensure consistency with the higher level plan's objective for the management of early winter range areas.

Finding #19

The higher level plan did not designate any early winter range areas for caribou. Therefore, the licensees were not required to undertake any action to ensure that proposed devlopments in early winter range areas were consistent with the higher level plan's objective for caribou.

The statutory decision-makers were nevertheless required, under the Code, to ensure that the forest development plans adequately managed and conserved caribou habitat values in early winter range areas. This requirement is provided by section 41(1)(b) of the Act, which falls outside the scope of this investigation. However, to address specific concerns identified during this investigation about the management of caribou early winter range areas, the Board is conducting a separate investigation into whether a forest development plan in the Quesnel Lake sub-unit and a related silviculture prescription adequately managed and conserved caribou habitat. The results will be provided in a separate report at a later date.

Mule deer

This investigation assessed the forest development plans for consistency with the higher level plan's objective to maintain mule deer winter range in a condition that will support the regional population during critical winter conditions. For the Quesnel Lake sub-unit, the higher level plan achieves this through its target to manage approximately five percent of the sub-unit for mule deer winter ranges. The higher level plan specifies maintaining "crown closures and old growth on winter ranges as defined in the handbook for timber and mule deer management

[33] *90-Day Implementation Process Final Report*, February 1995, page 157.

and management plans."[34] The handbook referred to is the *Handbook for Timber and Mule Deer Management Co-ordination on Winter Ranges in the Cariboo Forest Region* (1986). The higher level plan further requires "light selective harvesting of Douglas fir will be the logging method employed on these winter ranges."[35]

A technical committee developed a draft strategy (*Regional Mule Deer Winter Range Strategy*, July 1996) for achieving the higher level plan's targets and objectives for mule deer winter ranges. It designated five mule deer winter ranges located partially or wholly in the Quesnel Lake sub-unit and covering about five percent of the sub-unit. The strategy applied crown closure values from the handbook to mule deer winter ranges to identify where timber was available for harvest. Where current conditions did not meet the objectives, the strategy recommended not harvesting until target crown closure values were attained.

For the 1998-2002 and the 1999-2003 forest development plans, the Horsefly district manager and the previous and current designated environment official approved a total of five blocks in mule deer winter ranges. These approved proposals were consistent with the approach in the strategy and the handbook. The forest development plans were, therefore, consistent with the higher level plan's targets and objectives for managing winter range for mule deer.

Finding #20

The forest development plans were consistent with the higher level plan's targets and objectives for the management of mule deer winter ranges.

Water resources

The investigation assessed the forest development plans for consistency with the higher level plan's targets and objectives for water resources. The CCLUP includes five distinct targets for water resources in the Quesnel Lake sub-unit, of which the Board considers four to be part of the higher level plan.[36]

The first higher level plan water resource target is to "maintain riparian habitats through the establishment of riparian management zones on all streams, lakes and wetlands as specified under the Forest Practices Code and Riparian Guidelines."[37] The higher level plan further states: "Ensuring the sustainability of these wetlands is a priority and requires application of the FPC including the riparian guidelines..." The Board assumes that "riparian guidelines" refers to the *Riparian Management Area Guidebook*, which was nearing completion at the time the higher level plan target was written. The higher level plan, therefore, requires implementing the Code's general requirements for riparian management and, arguably, requires implementing the *Riparian Management Area Guidebook*.

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[34] *90-Day Implementation Process Final Report*, February 1995, page 154.

[35] *90-Day Implementation Process Final Report*, February 1995, page 154.

[36] The five targets are provided on page 85 of the *90-Day Implementation Process Final Report*, February 1995.

[37] *90-Day Implementation Process Final Report*, February 1995, page 85.

The Code's general riparian provisions for forest development plans require that the plans identify the locations and classifications of streams, lakes and wetlands, following the classifications designated by the OPR.[38] The Board interprets that, when determining classification, the higher level plan required following the procedures detailed in the guidebook (other parts of the guidebook do not relate to the forest development plans). The investigation did not assess the forest development plans for compliance with general Code requirements such as this. In deciding not to investigate this particular target, the Board considered that it has completed three audits of licensees operating in the Cariboo Forest Region and found that the licensees complied with the riparian requirements of the Code.[39]

The second higher level plan water resource target is to "manage the Quesnel, Bowron and Horsefly River watersheds for salmon stocks (approximately 80 percent of the polygon), through riparian area protection and controls on the rate of timber harvest."[40] Riparian area protection is achieved through forest development plan compliance with the Code's riparian requirements. These were not examined in this investigation. Controls on the rate of harvest can be imposed by recommendations resulting from watershed assessments. The CCLUP states that watershed assessments should be undertaken when disturbance levels exceed 25 percent, and that the Horsefly River is the first priority for watershed assessment and watershed/ecosystem restoration.

Watershed assessments are strategies for the ongoing implementation of the CCLUP. They are not part of the higher level plan. Licensees were therefore not required to address watershed assessments in their forest development plans to ensure consistency with the higher level plan. The recommendations of watershed assessments are, instead, implemented through general Code provisions that are outside the scope of the investigation. Nevertheless, the Board notes that watershed assessments were completed for all but two sub-basins in the Quesnel Lake sub-unit where current levels of disturbance exceeded 25 percent. For the two exceptions, the statutory decision-makers did not approve any harvesting in the watersheds. Watershed assessments identified constraints for the rate-of-cut in only one area,[41] where additional clearcutting was restricted to one percent of the area per year. Forest development plans were consistent with that recommendation.

The third higher level plan water resource target is "to manage the Lemon Creek watershed to address fisheries flow issues and agricultural needs." The CCLUP provides no further definition of that broad target. The ambiguity of this target makes it difficult to assess whether the forest development plans are consistent with it. Consequently, the Board did not attempt to do so.

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[38] Further details are riparian requirements for forest development plans are provided in sections 28 and part 10 of the OPR (174/95), and sections 15, 18(1)(b), 18(1)(e)(xiii), 20(I)(b)(vii), and part 8 of the OPR (107/98).

[39] *Audit of Timber Harvesting and Road Construction, Maintenance and Deactivation, Forest licence A20010 Tolko Industries Ltd. Questwood Division*, December 1998; *Audit of Silviculture Practices, West Fraser Mills Ltd., Forest Licence A20021*, April 1997; *Audit of Timber Harvesting and Road Construction, Maintenance and Deactivation, Lignum Ltd. Forest Licence A20003*, December 1999.

[40] For managing salmon stocks, the CCLUP objective was "no net loss" of productive capacity in relation to proposed development activity.

[41] The Woodjam sub-basin.

The fourth higher level plan water resource target is to "manage approximately 5 lakes as quality lakes for wilderness fisheries; priority area for Lake Management Planning." For the 1998-2002 forest development plans, the previous designated environment official did not approve any proposals in the immediate vicinity of lakes because no lake management plan was in place. For the 1999-2003 forest development plans, the Horsefly Forest district provided a lake management plan to guide development.[42] It identified six lakes[43] in the Quesnel Lake sub-unit as "class A" lakes (harvesting is prohibited in the immediate vicinity of those lakes). The Board considered the lake management plan's class A lakes to be "quality lakes" under the higher level plan. The forest development plans did not propose harvesting within the areas where the management guidelines of the lake management plan applied. The 1999-2003 forest development plans were therefore consistent with the lake management plan and with the higher level plan's target for lake management.

Finding #21

The forest development plans were consistent with the higher level plan's water resource target to manage five lakes as quality lakes. The higher level plan's other water resource targets were either too vague for the Board to determine consistency or relied on general Code provisions that were outside the scope of the investigation.

The CCLUP also includes the water resource target to "manage the Cariboo and Horsefly River watersheds for hydrologic stability through watershed assessment, restoration work and monitoring programs." Watershed assessments, restoration work and monitoring, although described in the CCLUP as a target, are in fact strategies for the ongoing implementation of the CCLUP. These strategies are not part of the higher level plan and are outside the scope of the investigation.

Visual quality

The investigation assessed the forest development plans for consistency with the higher level plan's targets for visual quality for key lakes and rivers and existing tourism operations. Specific targets for the Quesnel Lake sub-unit are to: "maintain the visual quality in the viewshed surrounding Quesnel and Horsefly Lakes and the Horsefly River"; and "maintain the visual quality in the viewshed surrounding existing tourism operations."[44] The higher level plan also requires that, when operating near important tourism areas, forest operations "should either avoid or minimize impact on scenic quality. Any impacts that do occur must be rehabilitated within a specified time period."[45]

The higher level plan does not define "maintain." Based on common usage of the word "maintain," the Board interprets that the higher level plan requires visual quality, as it existed

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[42] Provided on May 12, 1998.

[43] Buckingham Lake, Grizzly Lake, Maeford Lake, Patenaude Lake, Suey Lake, Wasko Lake (Lower, Upper and Middle).

[44] *90-Day Implementation Process Final Report*, February 1995, page 84.

[45] *90-Day Implementation Process Final Report*, February 1995, page 140.

when the higher level plan was declared on January 23, 1996, to not be diminished. Harvesting could replace, but not increase, the visual impact of previous cutblocks as the older cutblocks green up. Low-visibility harvesting (i.e., avoiding or minimizing impact on scenic quality through high retention silvicultural systems) or non-visible harvesting (i.e. harvesting behind a visual screen such as a ridge) might also maintain visual quality. Given this interpretation, the Board assumes that any additional visual impact that occurs to the scenic quality around existing tourism operations (e.g., windfall after harvesting operations) would then require rehabilitation within a specified time period.

The Board considered whether its interpretation might prevent other higher level plan resource objectives from being achieved. If so, this could suggest that the interpretation based on common usage of the word "maintain" is inappropriate. The Board's interpretation constrains, but does not prohibit, harvesting in viewsheds, even for viewsheds where no previous harvesting has occurred. There is no evidence that the interpretation would prevent achieving the higher level plan's targets for timber over the long term. The Board's opinion is that the common usage of the word "maintain" should be applied to those higher level plan targets.

Finding #22

The higher level plan required that the forest development plans must not diminish the visual quality in the viewsheds around Quesnel Lake, Horsefly Lake, Horsefly River, and existing tourism operations.

For the viewsheds around the lakes and the Horsefly River, the statutory decision-makers approved about 700 hectares of harvesting proposals in areas of moderate or high visual sensitivity. The Board did not determine whether those approvals were consistent with the higher level plan. That would require examination of operational plans, such as silviculture prescriptions, and supporting visual quality assessments from various viewpoints. Such detailed assessment was beyond the scope of the investigation.

The statutory decision-makers did not approve, in the forest development plans, any harvesting that was visible from the five existing tourism operations. The forest development plans were, therefore, consistent with the higher level plan's objectives to maintain visual quality in those specific viewsheds.

Finding #23

The forest development plans were consistent with the higher level plan's objectives to maintain visual quality in the viewsheds surrounding existing tourism operations.

In the forest development plans, licensees and statutory decision-makers followed LUCO's interpretations for an average of partial retention around the lakes and the Horsefly River, and for a mix of retention and partial retention for the viewsheds around the existing tourism operations. Partial retention requires that alterations remain visually subordinate to the

characteristics of the landscape. Retention requires management activities or alterations not to be visually apparent; changes may be discernible but not clearly visible.[46]

LUCO's interpretations have no basis in the higher level plan. For the viewsheds around the lakes and the Horsefly River, the interpretation meant that individual cutblocks could have any level of visual disturbance, providing that the cutblocks averaged out to partial retention. This does not ensure that the visual quality in viewsheds will not be diminished. The Board considers that this interpretation is inconsistent with the higher level plan. For existing tourism operations, a mix of retention and partial retention will not necessarily prevent the visual quality in those viewsheds from being diminished.

Finding #24

The interpretations of the visual quality targets applied by licensees and the statutory decision-makers have no basis in the higher level plan, and will potentially result in approval of forest development plans that are inconsistent with the higher level plan.

Road access

The forest development plans must be consistent with the higher level plan's targets for road access to the area. The higher level plan provides targets for road access as a tool for achieving its objectives for recreation, wildlife, and botanical forest products. The road access targets should not be confused with the timber access targets, which provide for timber extraction. The higher level plan has three different road access targets. The targets relate to naturally-occurring products, backcountry areas, and other areas.

Road access for naturally-occurring products

The first target is to maintain road access to at least 30 percent of the Quesnel Lake sub-unit to allow for the commercial harvest of various naturally-occurring products, such as wild mushrooms, berries, and other forest products. The investigation estimated that the forest devlopment plans will result in permanent road access to over 60 percent of the sub-unit, and therefore the forest development plans are consistent with this target. However, the investigation did not assess if these roads provided access to areas where these natural products are occurring, as that was not a requirement of the higher level plan.

Finding #25

The forest development plans were consistent with the higher level plan's target to maintain road access to at least 30 percent of the Quesnel Lake sub-unit.

[46] *Forest Landscape Handbook*, Ministry of Forests, 1981.

Road access for backcountry areas

The second road access target relates to currently undeveloped or "backcountry" areas that may contain important wildlife, recreation and/or tourism values. The CCLUP makes these unroaded areas available for timber production, subject to the other targets and objectives of the higher level plan.[47] For the Quesnel Lake sub-unit, the higher level plan target is to keep 25 percent of the area in a backcountry condition. This road access target includes areas above 5000 feet, and areas adjacent to the Stanley-Cariboo Wagon Road.

The higher level plan defines "backcountry" as areas suited for recreation experiences that are semi-primitive motorized, semi-primitive non-motorized, and primitive.[48] The higher level plan states that the actual proportions of recreation categories will be determined through subsequent planning exercises. In other words, the target's 25 percent backcountry represents a range of potential conditions that has yet to be determined. Semi-primitive motorized recreation, the least restrictive of these categories for access, requires unroaded areas larger than 1000 hectares to be located at least one kilometre from roads.[49] This least restrictive category represents the minimum requirement of the higher level plan. To be consistent with the higher level plan, the forest development plans had to at least meet this minimum requirement.

The forest development plans, when reviewed in aggregate, resulted in about 26 percent of the Quesnel Lake sub-unit being in a semi-primitive motorized condition. This estimate recognizes that non-deactivated roads, accessed by barge over Quesnel Lake, are roads:

> Road means any surface designed for use by conventional 2 [wheel-drive] or 4 [wheel-drive] automobiles that is either:
>
> - linked to a highway through a continuous network of roads and has not been 'put to bed'; or
> - not linked to a highway because it is accessible only by water or air but is presently being used for access purposes.[50]

The forest development plans are, therefore, consistent with the higher level plan's minimum requirement for backcountry. However, future forest development plans that propose additional roads in backcountry areas will likely exceed even the minimum requirement unless existing roads are deactivated. Furthermore, if planning exercises determine that more restrictive backcountry categories should be applied, then further road deactivation would be needed to achieve the higher level plan target. Currently, the type and location of backcountry areas have not yet been identified. Until this is done forest development plans will not be able to adequately manage for backcountry areas.

The implementation of the backcountry targets is being further hindered because licensees and administrators, when developing and reviewing the forest development plans, applied LUCO's

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[47] *90-Day Implementation Process Final Report*, February 1995, page 25.

[48] Appendix 4.

[49] *Recreation Opportunity Spectrum Inventory Procedures and Standards Manual*, MOF, October 9, 1998.

[50] *Recreation Opportunity Spectrum Inventory Procedures and Standards Manual*, MOF, October 9, 1998

interpretation that "backcountry does not prohibit permanent roads in all circumstances."[51] This interpretation contradicts the higher level plan, which clearly requires unroaded areas for backcountry. Continued application of this interpretation will allow for future forest development plans to be approved that are inconsistent with the higher level plan.

Finding #26

The forest development plans were consistent with the higher level plan target for backcountry recreation but only if the least restrictive backcountry category is assumed. The achievement of backcountry targets in future forest development plans is at risk because:

1) the type of backcountry appropriate for the Quesnel Lake sub-unit has not yet been identified;

2) the location of backcountry areas have not been identified; and

3) licensees and the statutory decision-makers are applying interpretations of the backcountry targets that contradict the higher level plan.

Road access for other areas

The third road access target relates to access management planning to protect environmental and other values outside of backcountry areas. A priority of this target is to limit disturbance and damage resulting from motorized vehicles in sensitive habitats such as alpine, grasslands and wetlands. In particular, the CCLUP states that moose calving areas and caribou habitat require access management to limit the potential for disturbance or poaching.

The specific target for the Quesnel Lake sub-unit is "to apply an access management strategy aimed at restricting the development of permanent road access over approximately 40% of the [sub-unit], in addition to the area to be managed for backcountry experience."[52] Neither the higher level plan nor the Code defines permanent roads. However, the CCLUP suggests that roads accessible to snowmobiles and all-terrain vehicles (ATVs) are roads for the purposes of access management planning. It states that an access management strategy would address snowmobile and ATV use, and that the Quesnel Lake sub-unit is a priority area for snowmobile and ATV planning.[53]

The forest development plans would result in only an estimated 12 percent of the sub-unit not having permanent road access, in addition to the portion of the sub-unit that is in a backcountry condition. This falls far short of the target to restrict permanent road access to approximately 40 percent of the sub-unit, in addition to the backcountry areas. The Board interprets that the target is to develop a strategy to restrict permanent road access to 40 percent of the sub-unit in the future (in addition to backcountry areas). Consequently, the 40 percent target is a long-term

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[51] *Government Clarification of Key Components of the Cariboo-Chilcotin Land-Use Plan*, November 5, 1996.

[52] *90-day Implementation Process Final Report*, February 15, 1995, page 85.

[53] *90-day Implementation Process Final Report*, February 15, 1995, page 160.

target and did not create specific short-term requirements for the forest development plans. Therefore, the forest development plans investigated did not need to be consistent with this target. However, given that only 12 percent of the sub-unit is currently unroaded (in addition to backcountry areas), it is likely that the target will not be achieved in the future unless a strategy for deactivating roads is implemented.

Finding #27

It is likely that the long-term target to restrict permanent road access to approximately 40 percent of the Quesnel Lake sub-unit, in addition to the backcountry areas, will not be achieved in the future unless a strategy for deactivating roads is implemented.

Currently, statutory decision-makers are applying direction that the higher level plan's target for access management planning does not necessarily restrict permanent road access,[54] even though the target clearly does exactly that. Furthermore, licensees are interpreting that roads blocked by Quesnel Lake are not "permanent" roads. The Board disagrees because the CCLUP emphasizes the importance of access planning for snowmobiles and ATVs. Snowmobiles and ATVs can be barged across the lake. Adopting these interpretations into an access management strategy could result in future forest development plans that are inconsistent with the higher level plan.

Finding #28

The licensees and the statutory decision-makers are applying interpretations of the target for access management planning that contradict the higher level plan. Continued application of those interpretations could potentially allow for future forest development plans to be approved that are inconsistent with the higher level plan.

Other wildlife

For the purposes of this report, "other wildlife" means species other than caribou and mule deer. The Code requires that the forest development plans for the Quesnel Lake sub-unit are consistent with the higher level plan's general objective to:

> manage for grizzly bear, moose, furbearers, species at risk and other sensitive habitats within the areas identified as riparian buffers, recreation areas, caribou habitat, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.[55]

The CCLUP indicates that this higher level plan objective for other wildlife is achieved by: applying other targets and objectives of the higher level plan, applying the general provisions of the Code, and developing management strategies. The development of strategies is not part of

[54] *Cariboo-Chilcotin Land-Use Plan (CCLUP) Interim Interpretive Guide*, April 4, 1996.

[55] *90-day Implementation Process Final Report*, February 15, 1995, page 85.

the higher level plan and was not considered by the investigation. The investigation also did not assess the forest development plans for compliance with general provisions of the Code.

With regard to other targets and objectives of the higher level plan, the CCLUP states that furbearers, such as marten, fisher, and waterfowl, will benefit from the regional biodiversity conservation strategy and an access management strategy. The CCLUP also states that upland winter habitat for moose can largely be provided by implementing the seral stages of the biodiversity guidelines (meaning the *Biodiversity Guidebook*). Other aspects of moose habitat needs, such as calving areas and summer habitat protection, are addressed under the biodiversity conservation requirements and the access management targets specified for each sub-unit. This report has previously described concerns with the implementation of the higher level plan's targets for access management and biodiversity. These same concerns might also adversely affect achieving the higher level plan's objective for other wildlife species in the Quesnel Lake sub-unit. The Board has no evidence indicating whether or not this has occurred.

Finding #29

The application of interpretations that are inconsistent with the higher level plan's targets for access management and biodiversity also increases the risk that present and future forest development plans will adversely affect other wildlife species in the Quesnel Lake sub-unit.

Recent Developments

Endorsement of the integration report as policy

On June 22, 1999, after the timeframe of the investigation, the deputy ministers for MOF, MELP, and Energy and Mines provided a letter to ministry staff endorsing the *Integration Report* as official government policy. The letter stated that the *Integration Report* would guide all government staff in their application and interpretation of CCLUP. The letter also stated: "Individual Ministries are accountable for ensuring that the delivery of programs within their respective mandates is consistent with the report."

Although the deputy ministers endorsed the *Integration Report* as policy, the ministers did not declare the report as part of the higher level plan. Licensees and decision-makers are bound, under the Code, to ensure that operational plans are consistent with the higher level plan. As a result, a decision-maker may be in a position, legally, to have to refrain from following this policy, even though they are directed by the deputy ministers to implement it. For example, the investigation identified that the *Integration Report* contradicts the higher level plan with regard to applying early seral stage targets and not harvesting above the caribou high-elevation line prior to the completion of a final strategy. The deputies' letter might encourage statutory decision-makers to make decisions that are inconsistent with the higher level plan.

Finding #30

The deputies' letter directing the statutory decision-makers to implement the *Integration Report* might encourage statutory decision-makers to make decisions that are inconsistent with the higher level plan.

Conclusions

The participants involved in the investigation want the Cariboo-Chilcotin Land-Use Plan to succeed and do not want to return to the pre-CCLUP era. The CCLUP's many detailed and specific targets and objectives provide a necessary framework for guiding intermediate levels of land use planning, which will ultimately guide operational planning. Countless hours by many dedicated people have gone into supporting and building this plan. However, some participants did not see their expectations of the higher level plan reflected in operational plans, such as the forest development plans. Their concerns were brought to the Forest Practices Board. As a result, the Board investigated 14 forest development plans in the Quesnel Lake sub-unit of the Special Resource Development Zone that were approved during a two-year period. The Quesnel Lake sub-unit is one of 13 sub-units that make up the SRDZ.

The following conclusions are based on that limited-scope investigation, but may have implications for implementing the higher level plan in other sub-units of the SRDZ and in other zones of the CCLUP.

Consistency of the forest development plans with the higher level plan

The Code required the forest development plans to be consistent with the higher level plan. In assessing compliance with this requirement, the Board concludes the following:

1. All of the forest development plans investigated were consistent with the targets and objectives of the higher level plan for mule deer winter ranges, lake management, road access for naturally occurring forest products, no-harvest areas, and visual quality in viewsheds surrounding existing tourism operations. All of the forest development plans were consistent with the target for backcountry recreation, but only if the least restrictive category for backcountry permissible under the higher level plan is assumed.

2. All but one of the forest development plans investigated were consistent with the higher level plan's objective to temporarily defer harvesting above the caribou high-elevation line. For the one forest development plan that was not consistent, the licensee, the current designated environment official, and the district manger (Quesnel Forest District) contravened the Code by proposing and approving harvesting above that line. The Board notes, however, that harvesting was to salvage blown-over timber and the plan was developed in consultation with MELP staff to limit the potential impact on caribou habitat.

3. The proportion of harvesting in the forest development plans that was modified to more sensitive practices fell far short of the required long-term target. Given the long-term nature

of the target, this shortfall is not inconsistent with the higher level plan but may put the future achievement of the target at risk. Licensees and statutory decision-makers have not yet fully addressed the requirement to modify harvesting to more sensitive practices.

4. The higher level plan's seral targets and biodiversity objectives for the SRDZ are presently contradictory. The Board was therefore unable to assess whether the forest development plans were consistent with the biodiversity requirements of the higher level plan. The Board notes that some statutory decision-makers applied direction that was inconsistent with the higher level plan's objectives for biodiversity. Continued application of this direction could increase the risk of losing some elements of biodiversity within the Quesnel Lake sub-unit.

5. Some of the higher level plan's targets are too vague to be implemented and assessed, and therefore do not provide meaningful operational planning guidance to licensees or statutory decision-makers. This includes the target for primary areas of timber development in the Quesnel Lake sub-unit to be in the northern, western and southern edges of the polygon. It also includes the target to manage the Lemon Creek watershed to address fisheries flow issues and agricultural needs.

Interpretations that affect the future implementation of the higher level plan

The Board found that the manner in which the higher level plan is being interpreted might affect its implementation in future forest development plans. It was appropriate and necessary for government to provide interpretations and guidance where ambiguities existed in the higher level plan's targets and objectives. However, the Board concludes that some of these interpretations will affect future achievement of certain targets and objectives.

6. Statutory decision-makers and licensees are applying interpretations, provided through the IAMC and LUCO on behalf of government, that allow forest development plans to increase permanent road access, disturb backcountry areas, and disturb viewsheds around key lakes and existing tourism operations, to a greater extent than is permissible under the higher level plan. It was inappropriate for government to provide interpretations and direction that conflicted with the higher level plan. Statutory decision-makers were bound under the Code by the provisions of the higher level plan and should not have applied those inconsistent interpretations.

7. Management direction provided in the *Integration Report*, for harvesting above the caribou high-elevation line and not applying early seral targets, contradicts the higher level plan. Statutory decision-makers may legally have to refrain from following the *Integration Report*, even though they were recently directed by the deputy ministers to implement it. The deputy ministers' direction places statutory decision-makers in an unfair position for making their decisions with respect to the higher level plan.

8. The application of interpretations that are inconsistent with the higher level plan's targets and objectives for biodiversity and road access also increases the risk that present and future forest development plans will be inconsistent with the higher level plan's objective for managing other wildlife species in the Quesnel Lake sub-unit.

9. LUCO's interpretations of the timber access targets may, over time, prove incompatible with the requirement of the higher level plan to exclude harvesting from no-harvest areas until alternative forest management regimes are developed. These interpretations might also progressively increase the risk of failing to achieve other targets over time. Currently, the IAMC has no monitoring process in place to ensure that all targets and objectives are achieved. This is cause for concern, given the SRDZ's objective to respect sensitive natural values.

Other specific issues that affect the future implementation of the higher level plan

The Board concludes that the future implementation of the higher level plan in forest development plans might be affected by the following issues:

10. Many of the strategies, described by the CCLUP as important for the ongoing achievement of the higher level plan's targets and objectives, have not yet been developed, or have not been endorsed as part of the higher level plan. The absence of strategies is creating challenges in implementing the higher level plan. For example, it has created legal uncertainty regarding which seral targets must be implemented to achieve the higher level plan's biodiversity objectives. It also has put achievement of backcountry and road access targets at risk.

11. Implementating backcountry and no-harvest targets in future forest development plans might not be possible unless the locations of these targets are identified on the land-base.

General issues that affect the overall implementation of the higher level plan

The Board concludes that several underlying issues affect the overall implementation of the higher level plan:

12. The ministers' order, declaring the higher level plan, does not precisely define the parts of the CCLUP that are the higher level plan. The order makes it challenging for those charged with implementing the higher level plan to identify the parts of the CCLUP that must be adhered to under the Code. This could decrease legal certainty that future forest development plans will address key resource management issues, and could erode public confidence in the CCLUP.

13. The timber access targets of the higher level plan have broad social, economic and ecological implications, and yet the ministers have not clarified the legal commitments they have made through these targets in the higher level plan. Leaving these key interpretations to administrators has resulted in ongoing conflict surrounding the implementation of the higher level plan.

14. Under the current Code requirements, it is difficult or impossible for the public to understand, through review of the forest development plans, how the plans address the targets and objectives of the higher level plan. There is no process to allow the public to assess how and if the higher level plan is being implemented. This is contributing to concerns from the public that the CCLUP is not being implemented as required.

Recommendations

The CCLUP provides a framework that is essential for guiding the management of forest resources in subsequent levels of planning. However, ambiguity regarding the higher level plan, and the interpretations of its targets and objectives as they are being applied, might compromise the achievement of the higher level plan in future forest development plans and result in continuing conflict.

In accordance with section 185 of the Act, the Board offers the following recommendations to assist in the effective implementation of the higher level plan in the Quesnel Lake sub-unit and other areas under the CCLUP. The Board requests, under section 186 of the Act, that government report to the Board no later than May 31, 2001, on how it will implement these recommendations; and no later than October 31, 2001, on progress made to implement the recommendations.

1. The ministers' order, declaring the higher level plan, might not fully achieve its intent of increasing legal certainty that forest development plans in the Cariboo will address key forest management issues. The order does not clearly identify the specific CCLUP provisions that must be implemented under the Code. The Board therefore recommends that the ministers identify to the statutory decision-makers, the specific targets, objectives and strategies of the CCLUP that constitute the higher level plan.

2. A transparent process for clarifying the legal commitments made through the higher level plan, and for managing the ongoing evolution of the higher level plan, is needed to reduce conflict over its implementation. The process should ensure that the ministers retain responsibility for social-level decisions, yet be flexible enough so that implementation of the higher level plan is practical. Accordingly, the Board recommends that government develop a process that:

    - ensures that the ministers endorse, through an order-in-council, all amendments to the higher level plan that have significant social, economic or environmental impacts, and that the ministers provide an opportunity for adequate and effective public review and consultation prior to making any such changes. Such amendments might include clarifying key targets or objectives, changing the meaning of important targets or objectives, or changing numerical targets.

    - appropriately delegates authority from the ministers to the regional manager of MOF and regional director of MELP to make amendments to the higher level plan that do not have significant social, economic or environmental impacts (currently, the ministers have delegated the authority only to vary sub-unit timber targets within zonal restrictions).

    - provides clear criteria for the regional manager and regional director to follow in deciding whether an amendment to the higher level plan is "significant" for the purposes cited above.

3. Disagreement regarding the legal commitments that the ministers made through the timber access targets is resulting in ongoing conflict over the implementation of the higher level plan. The Board recommends that government, following the process it develops to address recommendation 2, amend the higher level plan to clarify its timber access targets to include whether timber access targets are area-based or volume-based, and the timeframe over which the area or volume is to be accessed.

4. Statutory decision-makers and licensees will find it difficult or impossible to implement the higher level plan's broad targets and objectives in forest development plans unless they are given appropriate policy direction. The direction provided for several targets and objectives is inconsistent with the higher level plan and will prevent or hinder the achievement of those targets and objectives. The Board therefore recommends that government take action to ensure that its direction for implementation is consistent with the higher level plan regarding:

    - road access in backcountry areas;
    - road access outside of backcountry areas;
    - visual quality in viewsheds surrounding key lakes and rivers and existing tourism operations;
    - applying early seral targets; and
    - harvesting above the caribou high-elevation line.

5. Uncertainty about the consistency of forest development plans with the higher level plan will continue unless, wherever possible, targets and objectives are linked directly to the land-base. Other planning initiatives have designated where some targets, such as viewsheds around key lakes, mule deer winter ranges and a caribou high-elevation line will be applied. This allows licensees to manage for these features in their forest development plans. However, the locations where backcountry and no-harvest targets will be applied have not been identified. It is unclear how the backcountry and no-harvest targets can be achieved unless the locations are identified. The Board therefore recommends that the statutory decision-makers make the location of these features known so that they may be managed in future forest development plans.

6. Implementing the higher level plan will not be possible unless its provisions are clear, understandable, and measurable. The Board recommends that government clarify its targets regarding:

    - managing the Lemon Creek watershed to address fisheries flow issues and agricultural needs; and
    - the location of harvesting in the Quesnel Lake sub-unit.

7. The absence of strategies, described by the CCLUP as necessary for the ongoing achievement of the higher level plan's targets and objectives, is putting implementation of the higher level plan at risk and creating legal uncertainty. Strategies should be developed as described in the CCLUP and, wherever feasible, the strategies or key portions of those strategies adopted as part of the higher level plan. Specifically, the Board recommends that government:

- amend the higher level plan to adopt the seral targets of the regional biodiversity conservation strategy (or alternative seral targets that are consistent with the higher level plan's objectives for biodiversity);
- determine the appropriate mix of backcountry experiences; and
- develop and implement an access management strategy to achieve the backcountry and access management targets for the Quesnel Lake sub-unit and other areas under the CCLUP.

8. Uncertainty about the consistency of forest development plans with the higher level plan will continue unless the public is provided with enough information to understand how the CCLUP is being implemented. The Board therefore recommends that government develop an effective way to:

   - allow the public to continue assessing and commenting on proposed forestry developments relative to the higher level plan (without increasing the complexity of forest development plans); and
   - regularly monitor whether, over time, forest development plans in aggregate are achieving all of the higher level plan's targets and objectives.

   The Board further recommends that government consider having a third party periodically assess the achievement of the higher level plan. These periodic assessments should address specific areas of concern identified by the investigation, including the achievement of modified harvest targets. Results should be reported publicly.

APPENDIX 1

Summary of the recommendations and responses to the Board's investigation 950038

The Board made a number of recommendations in its investigation Final Report: *Forest Practices Board Complaint 950038,* December 1996. Specific recommendations that related to the implementation of the higher level plan in operational plans, included:

- clarifying the requirements for the consistency of forest development plans with the higher level plans;
- completing initiatives as soon as possible to guide the implementation of the higher level plan, including the *Integration Report* and sub-unit planning; and
- ensuring the operational plans are consistent with the higher level plan by using a co-operative approach for reviewing the forest development plans, co-ordinating a review of all the plans in a sub-unit, and assessing plans relative to work being completed on the *Integration Report* and sub-unit planning.

Government responded that the *Integration Report* was nearing completion and that work on sub-regional planning was ongoing. The government also responded that it was satisfied that the forest development plans were consistent with current information on implementing the CCLUP, that the plans did not compromise long-term achievement of those targets and strategies, and that it would send a letter to decision-makers to clarify the implementation of the CCLUP.

Although government's response, in part, addressed the Board's recommendations, it does not demonstrate that forest development plans are consistent with the higher level plan, as required by the Code. Rather, the *Integration Report* and sub-unit planning entrenched interpretations of the higher level plan that the complainant believes contradict the higher level plan. The issues of the new complaint 970112/990177 were therefore not addressed by the previous complaint 950038.

APPENDIX 2

Examples of CCLUP references suggesting that timber access targets might be area-based or volume-based

Area-based references:

"Timber resource targets are expressed in terms of the percentage of the forest land available for harvest using conventional (current norm) practices, percentages available using modified techniques (practices designed to protect other resource values), and percentages not available due to environmental, tourism or recreation concerns."[56]

"These figures are percentages of the productive forest land base."[57]

"All netdowns in the SRDZ, including those induced by the Forest Practices Code, will not exceed 30 percent of the productive forest land base."[58]

Volume-based references:

"The forest industry will have access to 70 per cent of the timber from the productive forest land base averaged over the zone."[59]

"These include the general commitment that 70% of the timber from the productive forest land base of the Special Resource Development Zone will be available for timber harvesting..."[60]

"These targets, including access to 70 per cent of the timber from the productive forest land base averaged over the special resource development zone, are firm commitments."[61]

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[56] *90-day Implementation Process Final Report*, February 15, 1995, page 148.

[57] *90-day Implementation Process Final Report*, February 15, 1995, page 11.

[58] *90-day Implementation Process Final Report*, February 15, 1995, page 151.

[59] *Cariboo-Chilcotin Land-Use Plan, Government of British Columbia*, October, 1994.

[60] *90-day Implementation Process Final Report*, February 15, 1995, page 8.

[61] *Government's Intent Regarding the Implementation of the Cariboo-Chilcotin Land-Use Plan*, January 23, 1996.

APPENDIX 3

Summary of harvesting proposals approved in under-represented seral stands, based on the bioemphasis options provided in the draft regional biodiversity conservation strategy.[62]

1998-2002 forest development plans

Licence #	Block #	Hectares	Landscape Unit	Biogeoclimatic unit	Natural Disturbance Type	Seral Target Affected
A20015	CP227-1	30.5	Horsefly	ICHwk2	1	Mature+Old
A20015	CP227-2	20.4	Horsefly	ICHwk2	1	Mature+Old
A20015	CP002-98B21	30.3	Black Creek	SBSdw1	3	Mature+Old
Total		**81**				

1999-2003 forest development plans

Licence #	Block #	Hectares	Landscape Unit	Biogeoclimatic unit	Natural Disturbance Type	Seral Target Affected
A20015	CP384-1	40.4	Horsefly	ESSFwc3	1	Early
A20015	CP384-3	40.4	Horsefly	ESSFwc3	1	Early
A20021	CP319-1	18	Horsefly	ICHwk2	1	Mature+Old
A20021	CP319-10	32	Horsefly	ICHwk2	1	Mature+Old
A20021	CP319-11	8	Horsefly	ICHwk2	1	Mature+Old
A20021	CP319-3	25	Horsefly	ICHwk2	1	Mature+Old
A20021	CP319-5	25	Horsefly	ICHwk2	1	Mature+Old
A20021	CP319-6	35	Horsefly	ICHwk2	1	Mature+Old
A20021	CP319-7	22	Horsefly	ICHwk2	1	Mature+Old

[62] Or over-represented seral stands in cases where harvesting affected the early seral target.

Licence #	Block #	Hectares	Landscape Unit	Biogeoclimatic unit	Natural Disturbance Type	Seral Target Affected
A20021	CP319-9	28	Horsefly	ICHwk2	1	Mature+Old
A20021	CP319-4	14	Horsefly	ICHwk2	1	Mature+Old
A20017	CP344-1	24.1	Horsefly	ICHwk1	1	Mature+Old
A20017	CP344-2	22.2	Horsefly	ICHwk1	1	Mature+Old
PA16	CP160-1	30	Black Creek	SBSdw1	3	Mature+Old
A20015	CP327-1	26.9	Black Creek	ESSFwk1	1	Mature+Old and Early
A20015	CP327-2	28.5	Black Creek	ESSFwk1	1	Mature+Old and Early
A20017	CP429-3	60	Black Creek	ESSFwk1	1	Mature+Old and Early
Total		**480**				

APPENDIX 4

From "Recreation Opportunity Spectrum Inventory, Procedures and Standards Manual", Version 3.0, MOF October 9, 1998

Table 5 - ROS polygon delineation standards

			Factors			
	Remoteness		Naturalness		Social Experience	
ROS Class	Distance from road (km)	Size (ha)	Motorized Use	Evidence of Humans	Solitude/ Self-reliance	Social Encounters
Primitive (P)	> 8	> 5000 ha	occasional air access, otherwise no motorized access or use in the area	very high degree of naturalness; structures are extremely rare generally no site modification little on-the-ground evidence of other people evidence of primitive trails	very high opportunity to experience solitude, closeness to nature; self-reliance and challenge	very low interaction with other people; very small party sizes expected
Semi-Primitive Non-Motorized (SPNM)	≥ 1	≥ 1000 ha	generally very low or no motorized access or use may include primitive roads and trails if usually closed to motorized use	very high degree of naturalness; structures are rare and isolated except where required for safety or sanitation minimal or no site modification little on-the-ground evidence of other people	high opportunity to experience solitude, closeness to nature, self-reliance and challenge.	low interaction with other people; very small party sizes expected;
Semi-Primitive Motorized (SPM)	≥ 1	≥ 1000 ha	a low degree of motorized access or use	high degree of naturalness in the surrounding area as viewed from access route; structures are rare and isolated minimal site modification. some on-the-ground evidence of other people evidence of motorized use	high opportunity to experience solitude, closeness to nature, self-reliance and challenge	low interaction with other people; small party sizes expected

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